

Forest Conservation Program

Vision, Goals, and Actions

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Minnesota, North Dakota, and South Dakota Chapter





Outline

- 1. TNC and Personal Background**
- 2. Forest Program Goals and Activities**
- 3. Thoughts on Future Collaboration**



My Background





The Nature Conservancy

- **Founded in 1951**
- **Active in 50 states & 30 countries**
- **Traditional emphasis on preserves and conservation easements**
- **Growing emphasis on partnerships in “working landscapes”**





Who we are (or aspire to be)

We're **results** focused.

We're problem **solvers**.

We're **optimists**.



The Nature Conservancy's Restoring America's Forests Initiative

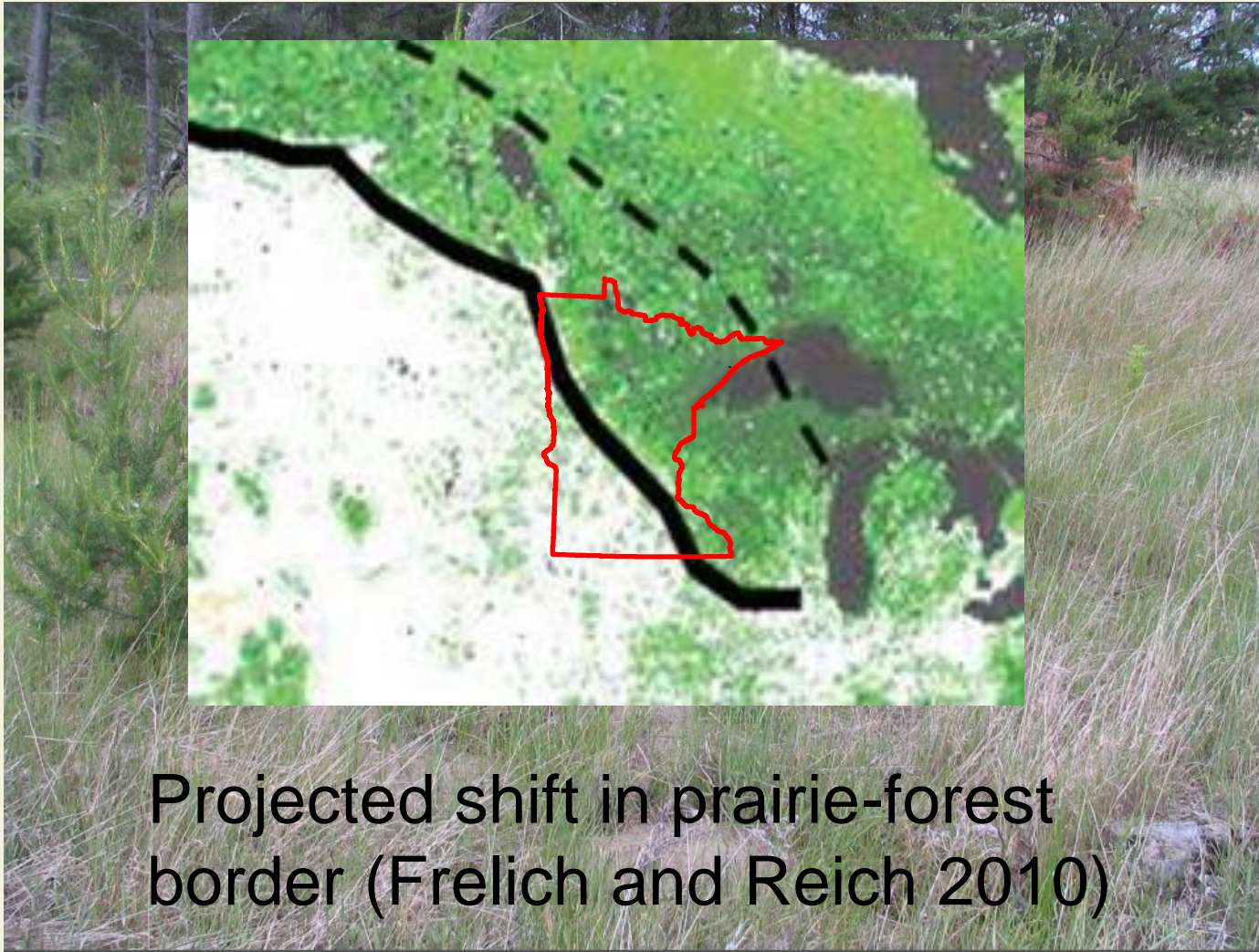




Birch Dieback on the North Shore



Jack-pine death on prairie-forest border



Projected shift in prairie-forest
border (Frelich and Reich 2010)

Deer Browse Impacts





Forest Conservation Program

Central Themes:

- **Improving the condition of the forest so that it continues to provide economic, social, and ecological benefits**
- **Resilience to climate change, invasive species, and other threats**



Resilience Definitions

The capacity of a physical site to maintain species diversity and ecological function as the climate changes

The capacity for renewal in a dynamic environment.

The ability to survive and thrive when the going gets rough!





Forest Conservation Program Goals

- ✓ Improve forest condition & resilience
- ✓ Establish common forest restoration priorities across key partners
- ✓ Increase funds available for forest restoration





NE Landscape Plan Goals

- **Encourage forestland retention**
- **Promote sustainable forest management**
- **Maintain, restore, and enhance native biodiversity**
- **Maintain and enhance water resources**
- **Enhance forest health and productivity**





NE Landscape Plan Goals

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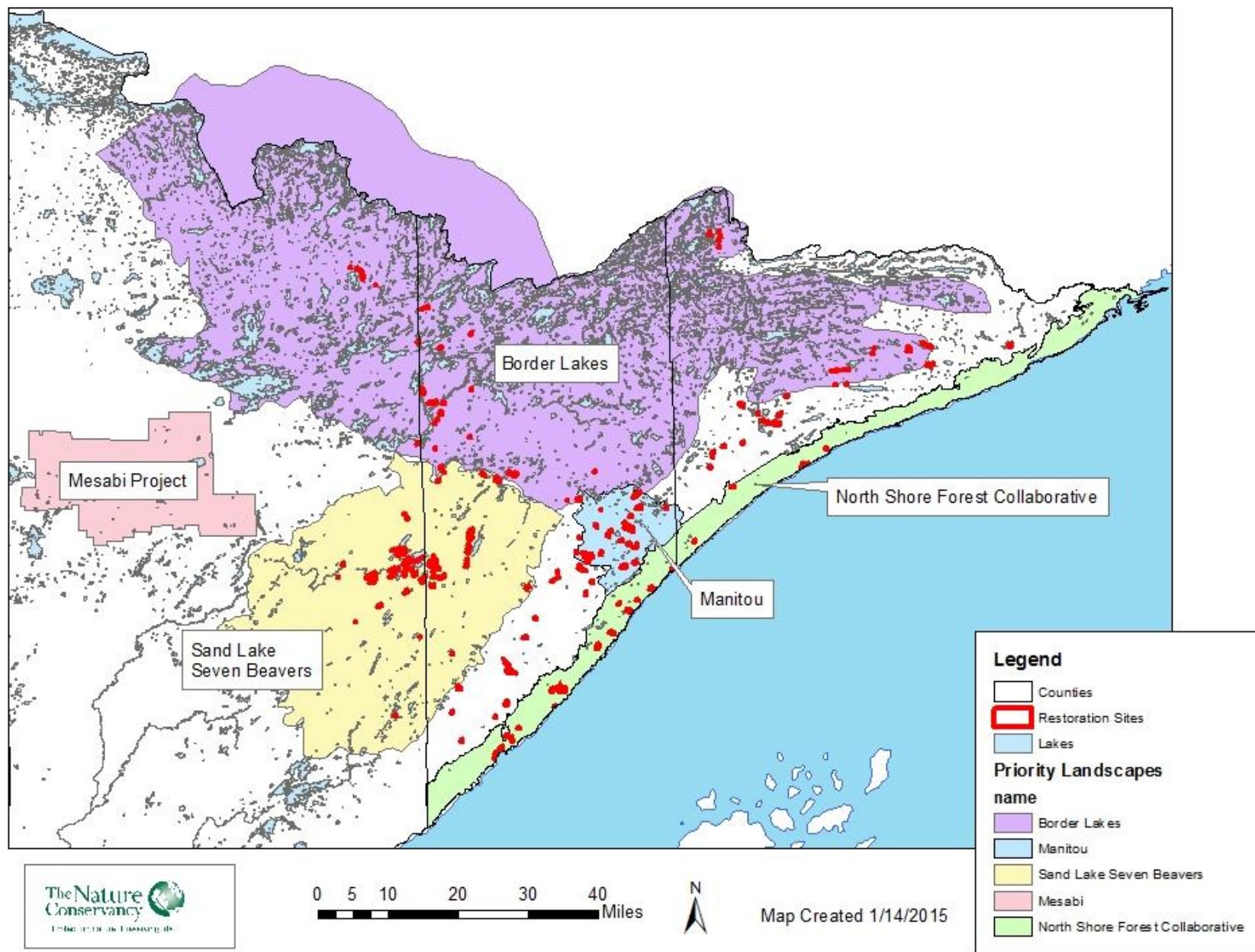


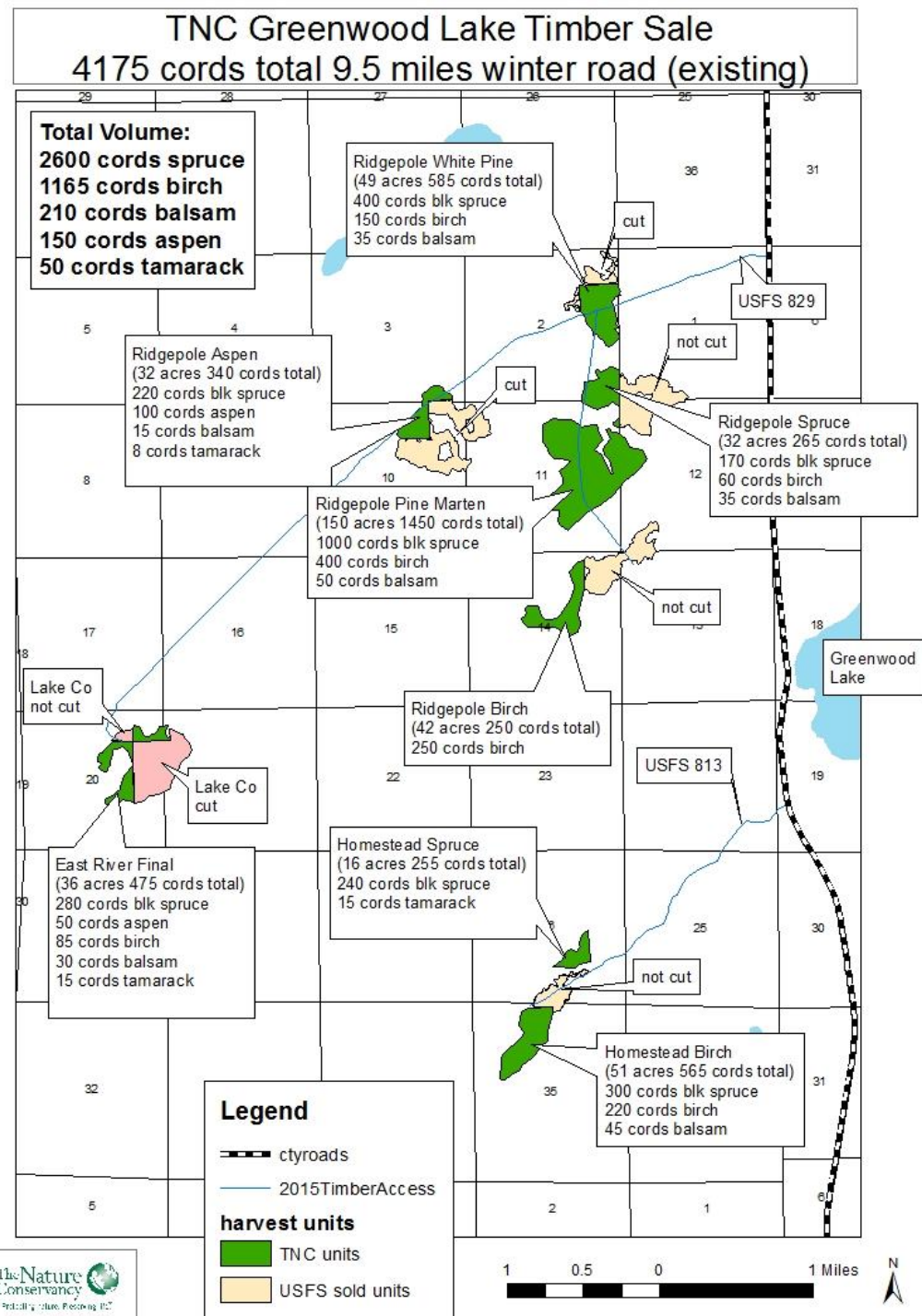
Restoration/Resilience Treatments

- **Logging**
- **Site preparation**
- **Tree planting**
- **Browse protection**
- **Release**
- **Pruning**



TNC Priority Landscapes and Forest Restoration Sites in Northeast Minnesota



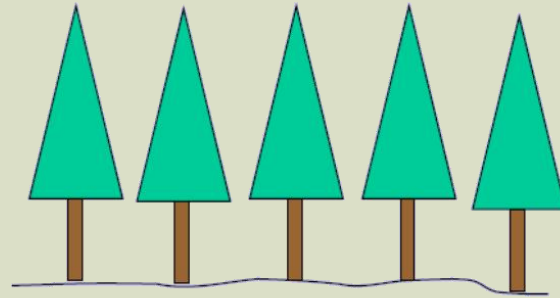




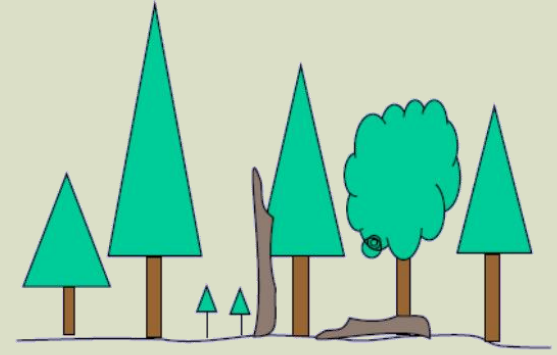
Silviculture for Conservation

Managing for Complexity

Mature Forest:



Simple

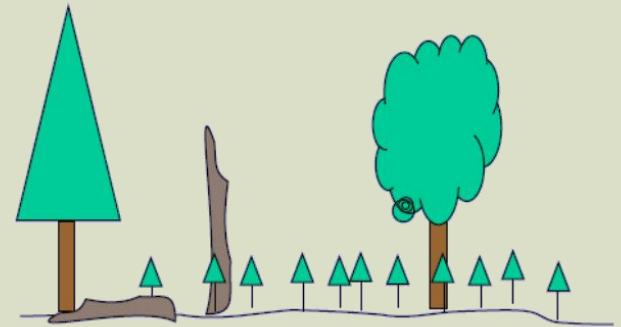


Complex

Young Forest:



Simple



Complex



Structural Treatments

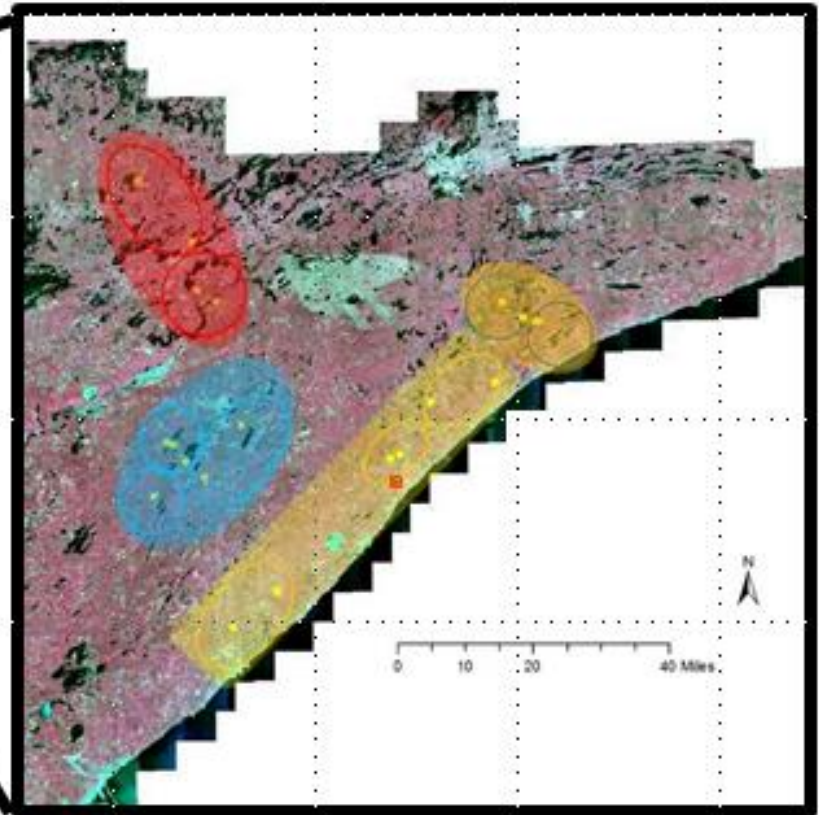
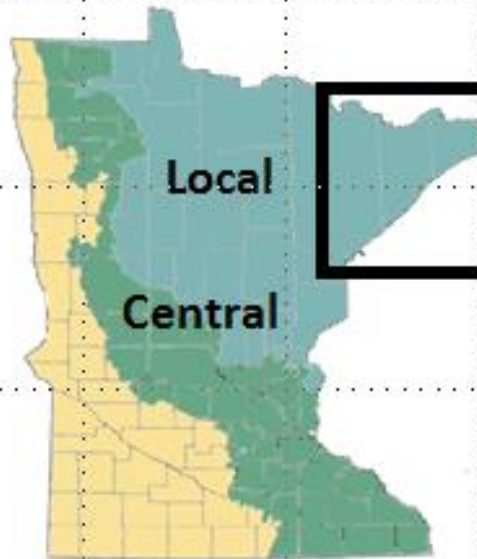
Gap



Shelterwood



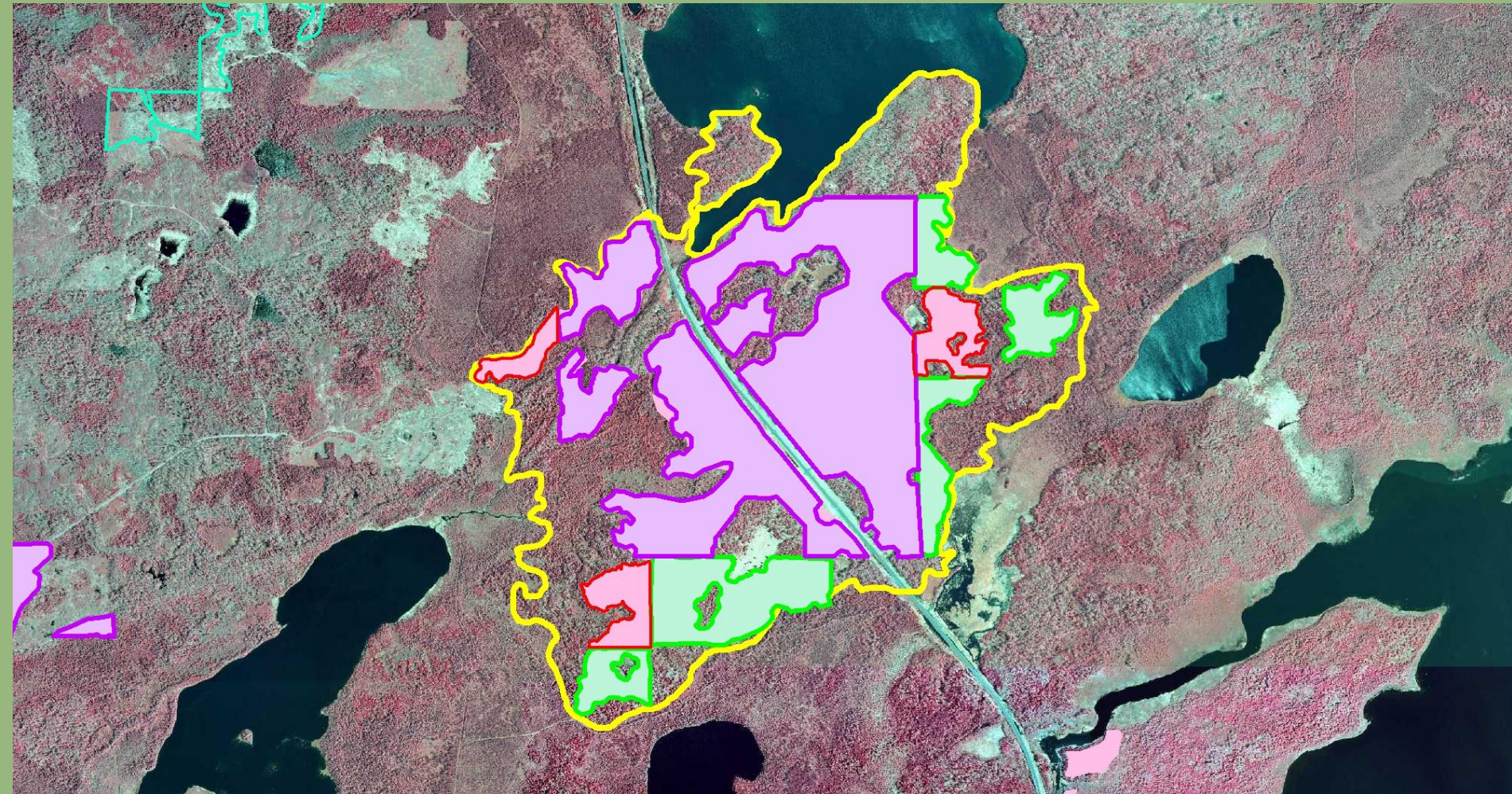
Adaptation Forestry Experiment



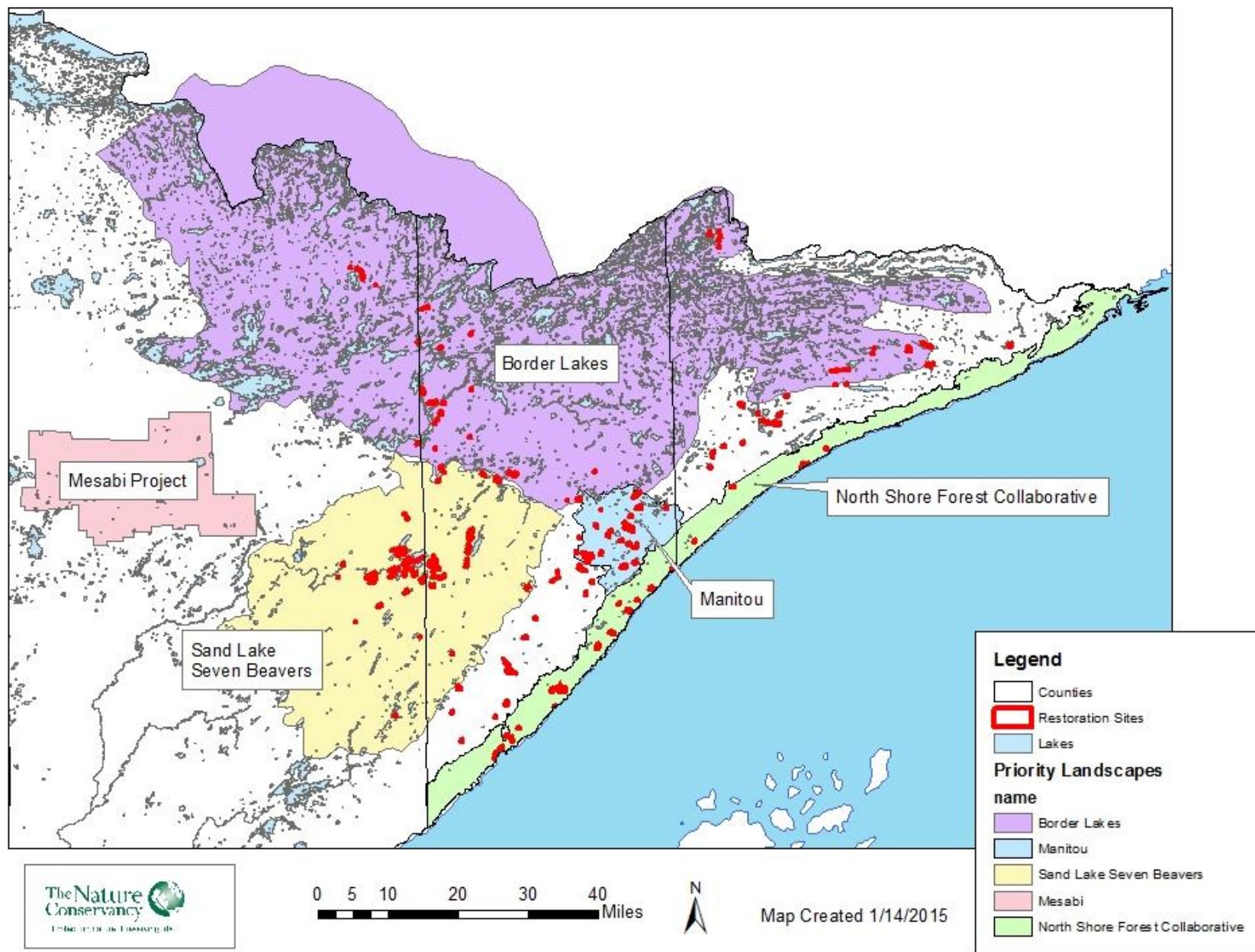
- 2000 Acres
- 3 species
- 2 ecotypes
- 108,000 trees

- Boreal mixed
- Dry-mesic pine
- Hardwood
- Mesic pine

Collaborative Forest Management Big Lake Patch ownership



TNC Priority Landscapes and Forest Restoration Sites in Northeast Minnesota





Early Thoughts on Future Prioritization

Possible Intersecting Components:

- **MFRC 25-year Vision**
- **State Wildlife Action Plan Analyses**
- **TNC Freshwater Program Analyses**
- **New Minnesota Biological Survey data**
- **TNC “Conserving the Stage” Analysis**



Conserving Nature's Stage: Identifying Resilient Terrestrial Landscapes in the Pacific Northwest



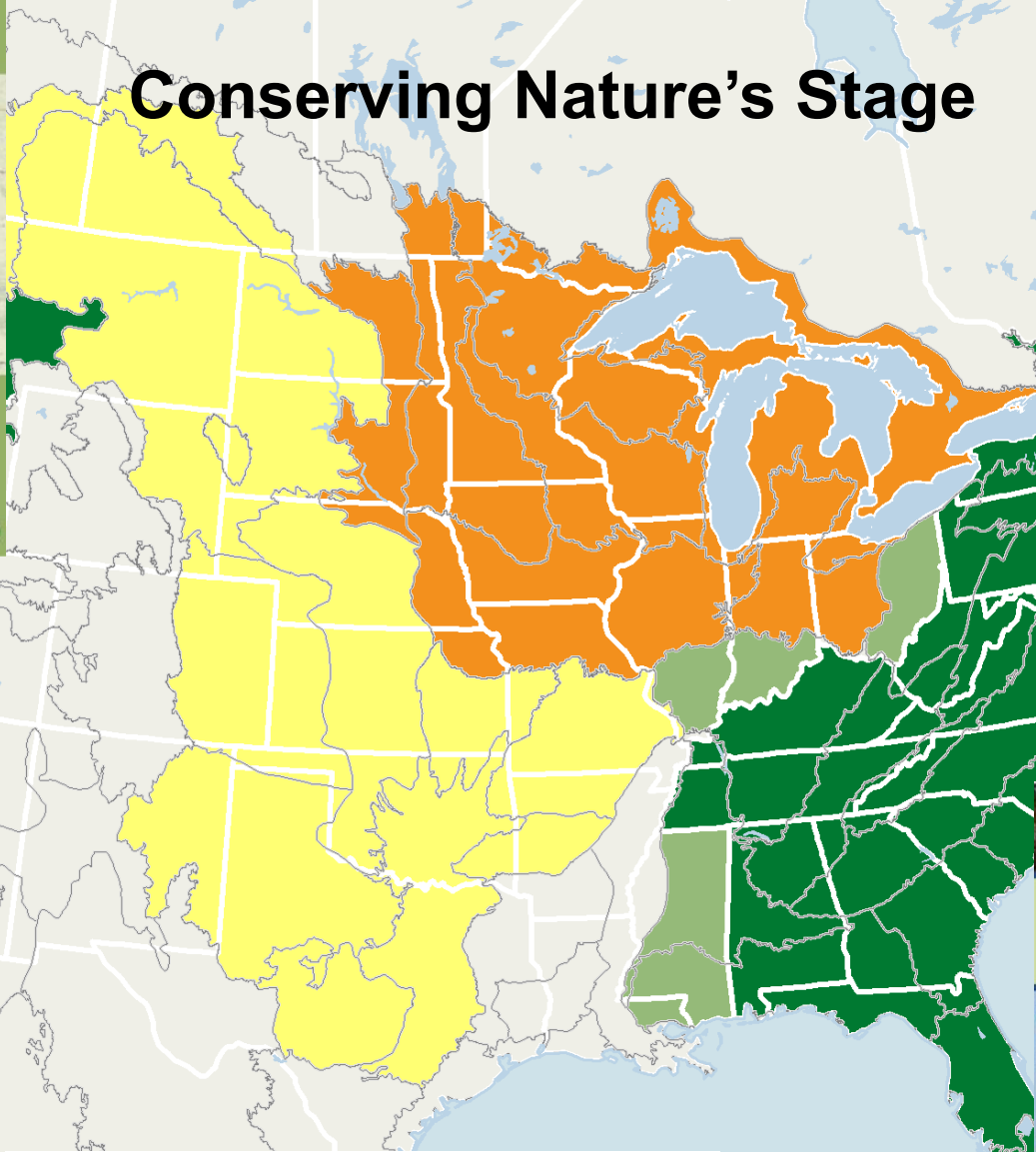
PACIFIC NORTHWEST AND NORTHERN CALIFORNIA
FINAL REPORT
TO THE DORIS DUKE CHARITABLE FOUNDATION
FEBRUARY 2012

STEVE BUTTRICK
KEVIN FOSBER
BRAD McRAE
BOB UNTHAGEN

MICHAEL SCHINDLER
ALAN JONES
JIM FLATT



Conserving Nature's Stage



Resilience Analysis Coverage

- Ecoregions
- Great Lakes Expansion
- Great Plains Expansion
- Previously Funded
- Underway

Primary Funder:
Doris Duke Charitable Foundation



Resilient Sites for Terrestrial Conservation in the Northeast and Mid-Atlantic Region

The Nature Conservancy Eastern Conservation Science
Mark G. Anderson, Melissa Clark, and Arlene Olivero Sheldon



January 30th 2012



Resilient Sites for Terrestrial Conservation In the Southeast Region

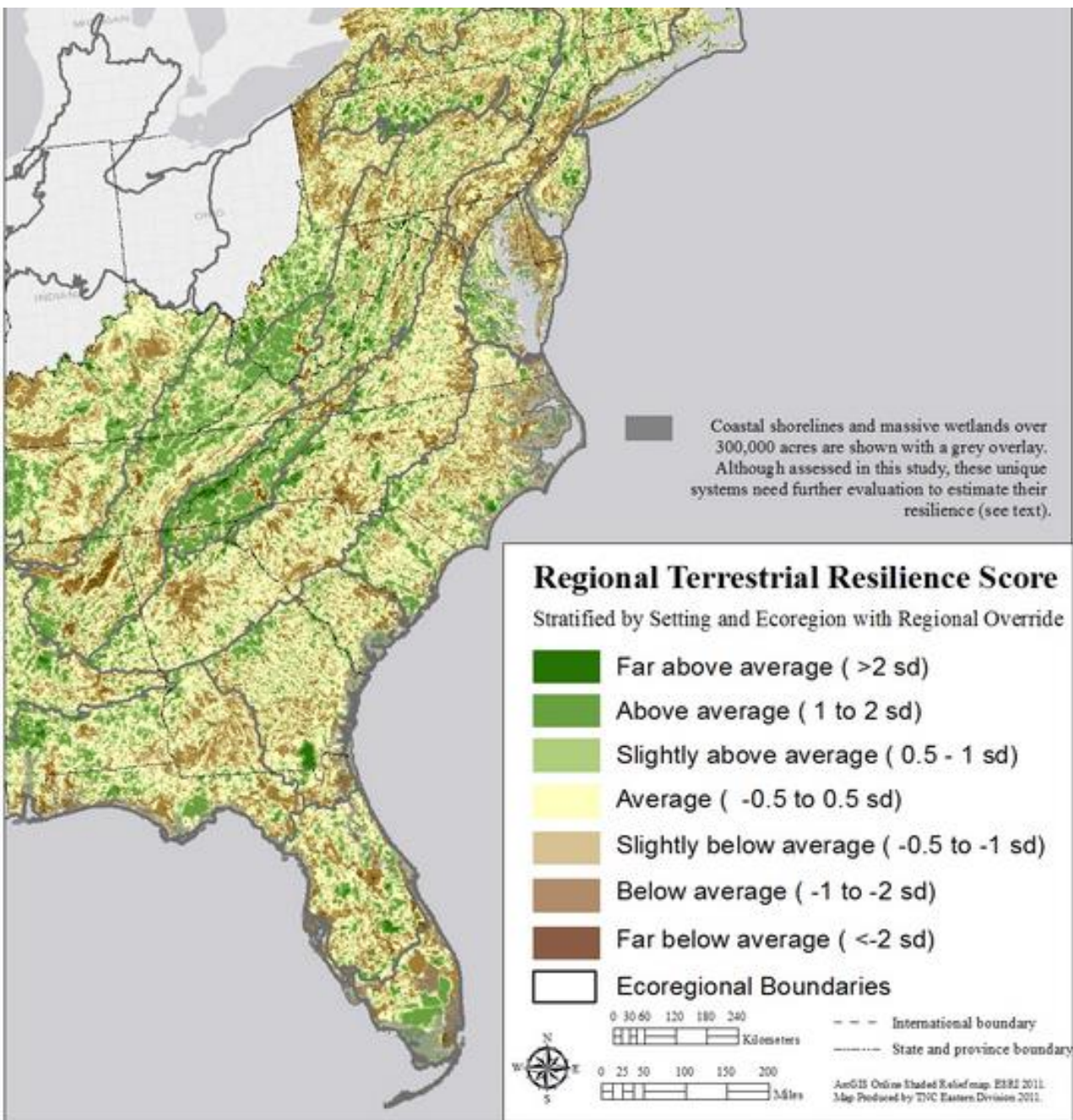


The Nature Conservancy Eastern Conservation Science
Mark G. Anderson, Annie Barnett, Melissa Clark,
Charles Ferriss, Arlene Olivero Sheldon and John Prince



Map by D. Majka 2014

Mapping Resilience





The Vision Thing

10,000 Points of Resilience

A New Era of Collaboration

Results, Results, Results

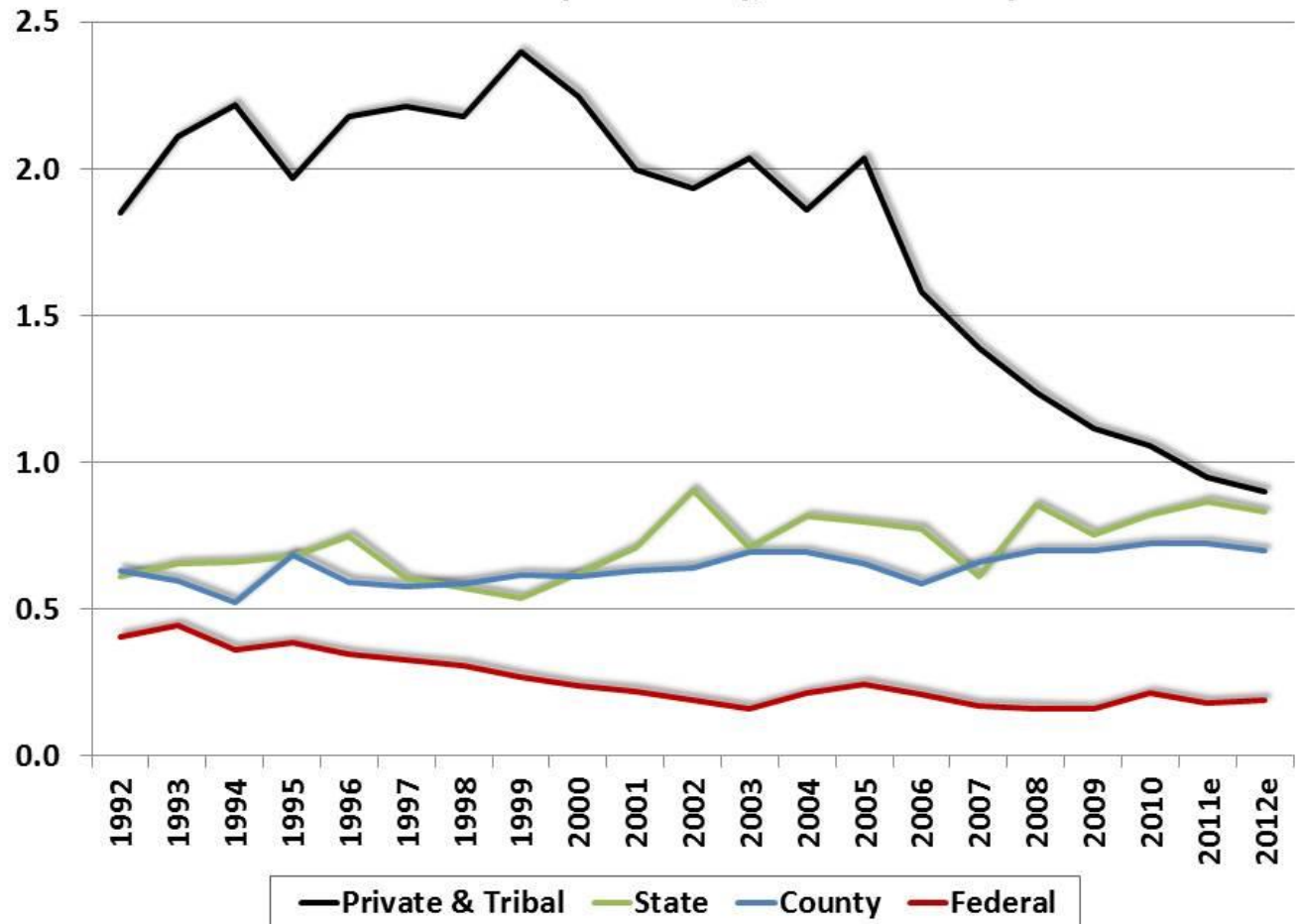




Extra Slides



Minnesota Timber Harvest by Ownership, million cord equivalents



Tree Planting



Browse Protection - budcaps



Browse Protection - mesh



Browse Protection - fencing

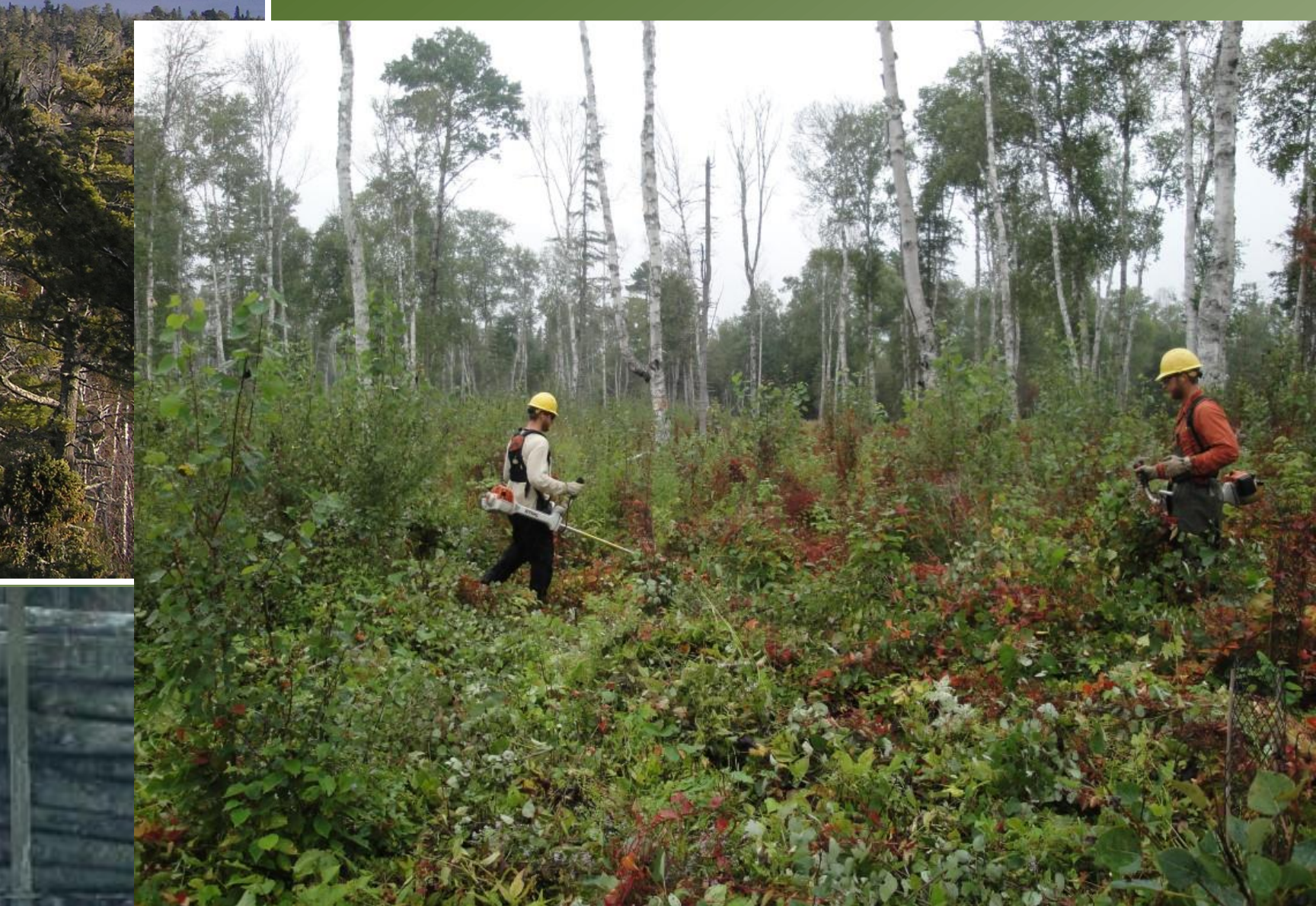


Site Preparation



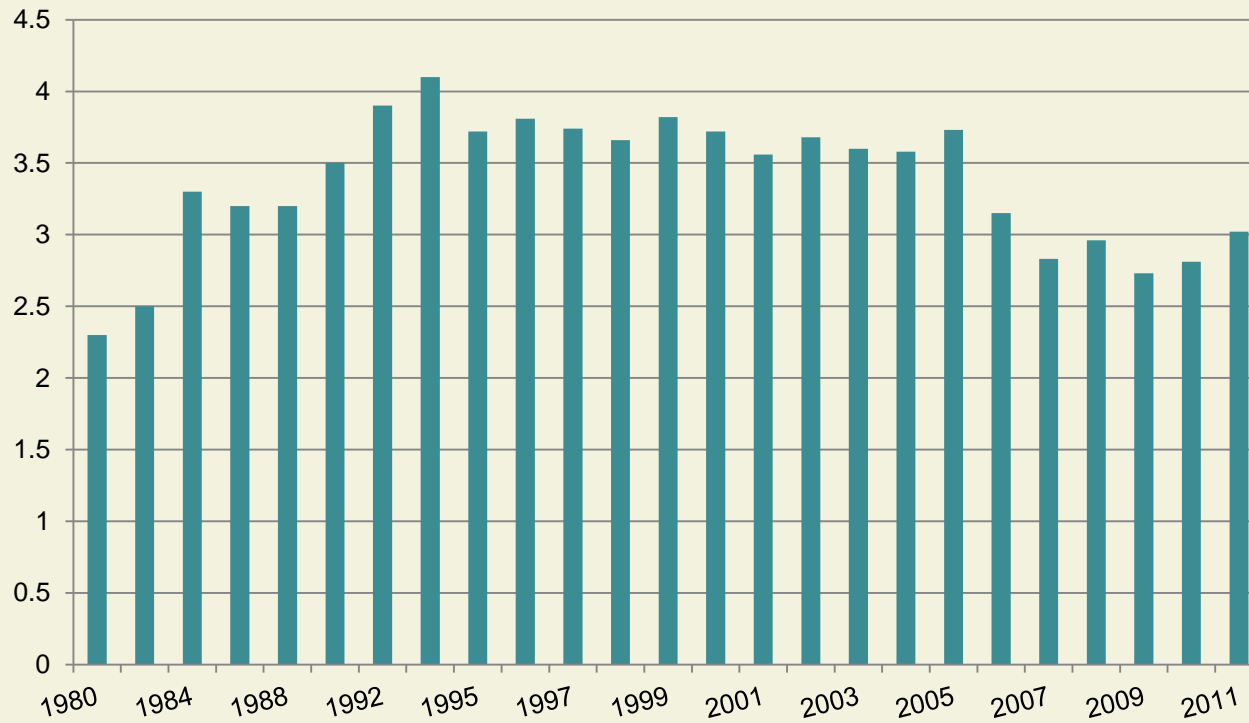


Release



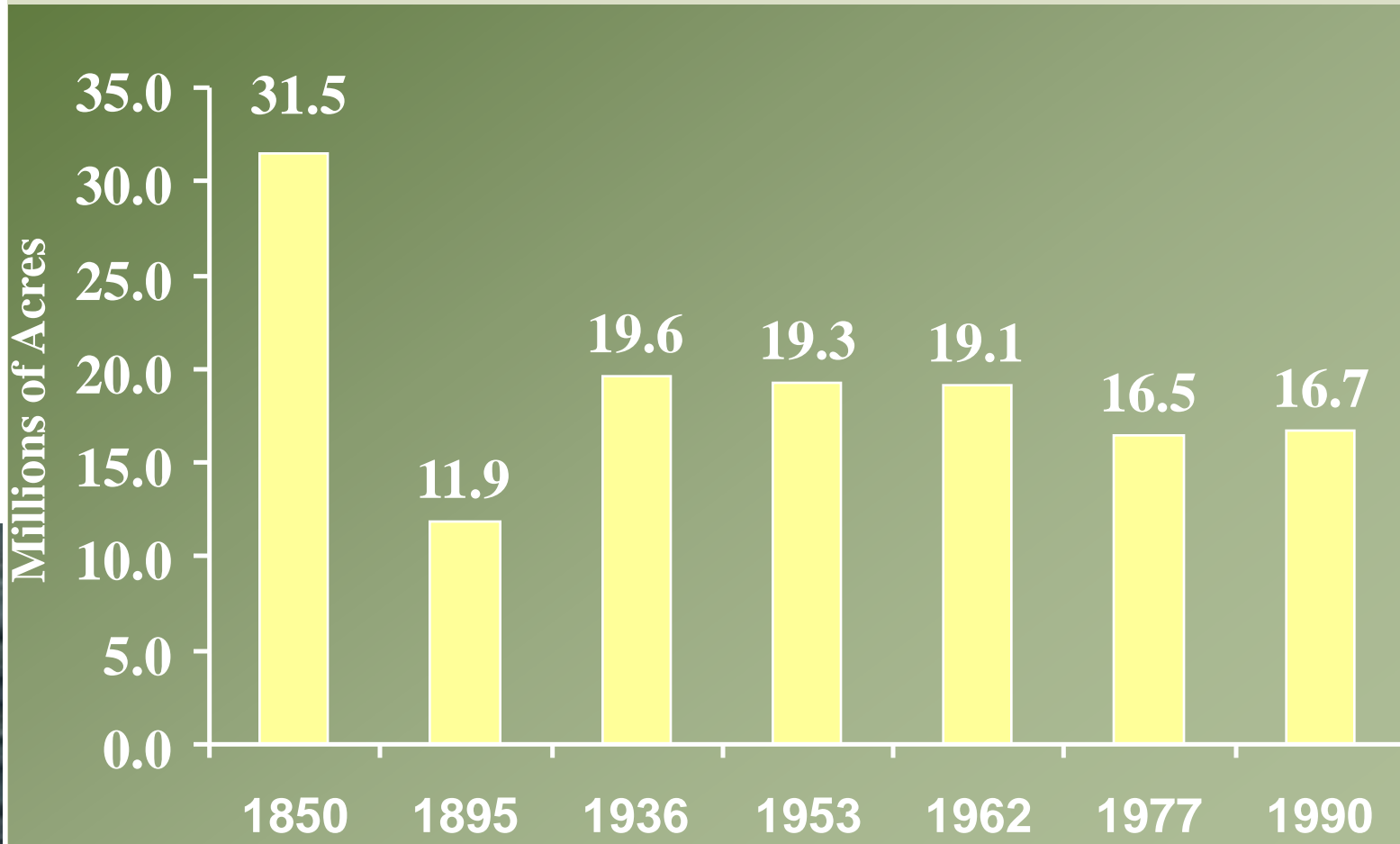
Extra Slides

**Total Wood Harvest in Minnesota
(Millions of Cords)**





Change in Forest Land Area in Minnesota, 1850-1990



SAVING

THE GREAT NORTH WOODS

